

DOBROVOL'SKIY, N. F.

USSR

Organometallic indicators, N. F. Dobrovolskiy. Sovetskaya Nauka, Moscow, 1953, No. 3, 12-17; Referat. Zhur., Khim. 1954, No. 25734. — Aniline Blue and Alkali Blue were used for detn. I^- and Ag^+ . Aniline Blue is used as $10^{-3}M$ soln. in 50% EtOH. Near the equiv. point the suspension becomes greenish blue. The min. determinable I^- and Ag^+ concns. is $0.02N$. The detns. can be carried out at pH 1.4-9.4 but the most favorable pH interval is 3-8.8. The presence of small quantities of HNO_3 and $NaOH$ do not interfere in the titration. In the titration of 20-25 ml. I^- with $AgNO_3$, the quantity of indicator is 2.6-14 ml. The error of detn. is from -0.11 to -0.5%. Titration of Ag^+ with KI soln. can be carried out only in artificial light. The optimum quantity of indicator is 4 ml./20 ml. of titrated soln. The error of detn. is 0.15-0.20%. Alkali Blue is used as 0.1% soln. in 50% EtOH. The min. determinable concn. of I^- is more than $0.015N$. The optimum quantity of indicator per 20 ml. of titrated soln. is 4-30 ml. for 0.1N KI and 4-6 ml. for 0.05N. The pH interval is 2.1-9.3. Free HNO_3 and $NaOH$ do not interfere. For microdetn. of KI 0.3-0.5 ml. of indicator are taken for 2 ml. of titrated soln. The error of detn. is 0.3-0.6%. Titration of Ag^+ with KI is reliable only in elec. light. Alkali Blue permits detn. of Cl^- and I^- when present together. First I^- is titrated to the transition of the violet-blue color into green-blue, then the pptn. of Cl^- is finished when the soln. is entirely clear. The av. error in the detn. of I^- is up to 0.7%. M. Hirsch

DOBROVOL'SKIY, N.F.

KRYLOV, V.A.; DOBROVOL'SKIY, N.F.

New rod pumps. Vod.i san. tekhn. no.3:6-9 Je '55. (MLRA 8:12)
(Pumping machinery)

DOBROVOL'SKIY, N. I.

U S S R

✓ Chlorine determinations in gastric content. M. P. Dobrovols'kiy and T. I. Mikhailets (Med. Inst., Kharkov). *Ukrain. Biokhim. Zhur.* 27, 113-117 (Russian summary, 117-18) (1953).—Diphenylamine Blue is used as the indicator. It is prepd. as follows: dissolve 1 g. of the dye in 100 ml. concd. H_2SO_4 (A); make soln. consisting of 3 ml. 5N H_2SO_4 + 0.3 ml. 0.1N $K_2Cr_2O_7$ (B). Add 1 drop A to B. This is the final indicator (I). Filter the gastric juice. Take 10 ml. of filtrate and add to it 0.5 g. Cl-free activated charcoal. Shake for 15-18 min. and filter. Add $NaHCO_3$ to alk. pH. Add 0.5 ml. of I to final gastric filtrate. A violet color appears. Titrate with 0.1N $AgNO_3$. The suspension acquires a green color. Continue titration to end point indicated by the decoloration of the ppt. and by the soln. returning to the original violet color. The method is claimed to be well suited to the needs of clinical and clinical labs.

VOLOD'KO, Ivan Povich; DOBROVOL'SKIY, N.F.; KASHEKOV, L.Ya.; PASHENKOV, Ya.M.
VOL'FOVSKAYA, V.N., redaktor; DOBROVSKIY, V.A., redaktor; SOKOLOVA,
N.N., tekhnicheskii redaktor

[Construction of driven wells] Stroitel'stvo trubchatykh kolodtsev.
Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 175 p. (MLRA 9:8)
(Wells))

DOBROVOL'SKIY, N.F., dotsent; KOROLEVA, V.I., dotsent; KOZAREZENKO, I.M.,
assistant

Determination of zinc in water. Gig. i san. 21 no.9:83-94 S '56.
(MLRA 9:10)

1. Iz kafedry organicheskoy khimii i kafedry neorganicheskoy
khimii Khar'kovskogo meditsinskogo instituta
(WATER SUPPLY

zinc determ. in drinking water)
(ZINC, determ.
in drinking water)

DOBROVOL'SKIY, N.F.; KOZAREZENKO, P.M.; KOROLEVA, V.I.

Polarographic determination of zinc in mineral waters. Ukr. khim. zhur.
22 no.5:673-675 '56. (MIRA 10:6)

1. Khar'kovskiy meditsinskiy institut, kafedry organicheskoy i neorganicheskoy khimii.
(Polarography) (Zinc) (Mineral waters)

DOBROVOL'SKIY, N.F.

Cyanine dyes as desorption indicators. Trudy kom. anal.khim. 11:113-119 '60.
(MIRA 13:10)

1. Kafedra analiticheskoy khimii, Khar'kovskiy meditsinskiy institut.
(Cyanine dyes) (Sorption)

ZHUCHKOVA, N.K.; VANKHADLO, TS.B.; GOLOVANOV, G.F.; DOBROVOL'SKIY, N.F.;
IOSHPE, M.L.

Paint and varnish coating used for the protection of water-purifying
filters from corrosion. Lakokras.mat.i ikh prim. no.1:42-43
'63. (MIRA 16:2)

(Water—Purification)
(Corrosion and anticorrosives)
(Paint materials)

DOBROVOL'SKI^Y, N. I.

Teoriia mekhanizmov diia obrazovaniia ploskikh kirvykh (Theory of mechanisms for making plane curves.) Moskva, AN SSSR, 1953. 148 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 6, Sept. 1953

DOEROVOL'SKIY, N.L., redaktor; GORITSKIY A.V., redaktor; ALADOVA, Ye.I.,
~~tekhnicheskii~~ redaktor.

[Over-all mechanization of separate building processes] Kompleks-
naya mekhanizatsiya otdel'nykh protsessov stroitel'nogo proiz-
vodstva. Moskva, Ugletekhnizdat, 1953. 167 p. (MLRA 7:8)

1. Russia(1923- U.S.S.R.) Ministerstvo ugol'noy promyshlen-
nosti. Glavnoye upravleniye kapital'nogo stroitel'stva.
(Building)

DOBROVOL'SKIY, N.L.

DOBROVOL'SKIY, N.L.; SHEVCHUK, B.M.; ZHILIN, S.P., redaktor; SAVIN, M.M.,
redaktor; KOROVENKOVA, Z.A., tekhnicheskij redaktor; PROZOROVSKAYA,
V.L., tekhnicheskij redaktor

[Organizing the construction of coal preparation plants] Organizatsiia
stroitel'stva ugleobogatitel'nykh fabrik. Moskva, Ugletekhizdat, 1954.
286 p. (MIRA 8:4)

(Coal preparation) (Industrial buildings)

DOBROVOL'SKIY, N.L.

AGALINA, M.S., inzh.; AKUTIN, T.K., inzh.; APRESOV, A.M., inzh.; ARISTOV, S.S., kand. tekhn. nauk.; BELOSTOTSKIY, O.B., inzh.; BERLIN, A.Ye., inzh.; BESSKIY, K.A., inzh.; BLYUM, A.M., inzh.; BRAUN, I.V., inzh.; BRODSKIY, I.A., inzh.; BURAKAS, A.I., inzh.; VAYNMAN, I.Z., inzh.; VARSHAVSKIY, I.N., inzh.; VASIL'YEVA, A.A., inzh.; VORONIN, S.A., inzh.; VOYTSEKHOVSKIY, L.K., inzh.; VRUBLEVSKIY, A.A., inzh.; GERSHMAN, S.G., inzh.; GOLUBYATNIKOV, G.A., inzh.; GOHLIN, M.Yu., inzh.; GRAMMATIKOV, A.N., inzh.; DASHEVSKIY, A.P., inzh.; DIDKOVSKIY, I.L., inzh.; DOBROVOL'SKIY, N.L., inzh.; DROZDOV, P.F., kand. tekhn. nauk.; KOZLOVSKIY, A.A., inzh.; KIRILLENKO, V.G., inzh.; KOPELYANSKIY, G.D., kand. tekhn. nauk.; KORETSKIY, M.M., inzh.; KUKHARCHUK, I.N., inzh.; KUCHER, M.G., inzh.; MERZLYAK, M.V., inzh.; MIRONOV, V.V., inzh.; NOVITSKIY, G.V., inzh.; PADUN, N.M., inzh.; PANKRAT'YEV, N.B., inzh.; PARKHOMENKO, V.I., kand. biol. nauk.; PINSKIY, Ye.A., inzh.; POULUBNYI, S.A., inzh.; PORAZHENKO, F.F., inzh.; PUZANOV, I.G., inzh.; REDIN, I.P., inzh.; REZNIK, I.S., kand. tekhn. nauk.; ROGOVSKIY, L.V., inzh.; RUDEMAN, A.G., inzh.; RYBAL'SKIY, V.I., inzh.; SADOVNIKOV, I.S., inzh.; SEVER'YANOV, N.N., kand. tekhn. nauk.; SEMESKO, A.T., inzh.; SIMKIN, A.Kh., inzh.; SURDUTOVICH, I.N., inzh.; TROFIMOV, V.I., inzh.; FEFER, M.M., inzh.; FIALKOVSKIY, A.M., inzh.; FRISHMAN, M.S., inzh.; CHERESHNEV, V.A., inzh.; SHESTOV, B.S., inzh.; SHIFMAN, M.I., inzh.; SHUMYATSKIY, A.P., inzh.; SHCHERBAKOV, V.I., inzh.; STANCHENKO, I.K., otv. red.; LISHIN, G.L., inzh., red.; KRAVTSOV, Ye.P., inzh., red.; GRIGOR'YEV, G.V., red.; KAMINSKIY, D.N., red.; KRASOVSKIY, I.P., red.; LEYTMAN, L.Z., red. [deceased]; GUREVICH, M.S., inzh., red.; DANILEVSKIY, A.S., inzh., red.; DEMIN, A.M., inzh., red.; KAGANOV, S.I., inzh., red.; KAUFMAN, B.N., kand. tekhn. nauk., red.; LISTOPADOV, N.P., inzh., red.; MENDELEVICH, I.R., inzh., red. [deceased];

AGALINA, M.S.... (continued) Card 2.

PENTKOVSKIY, N.I., inzh., red.; ROZENBERG, B.M., inzh., red.; SLAVIN, D.S., inzh., red.; FEDOROV, M.P., inzh., red.; TSYMBAL, A.V., inzh., red.; SMIRNOV, L.V., red. izd-va.; PROZOROVSKAYA, V.L., tekhn. red.

[Mining ; an encyclopedic handbook] Gornoe delo; entsiklopedicheskiy spravochnik. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po ugol'noi' promyshl. Vol. 3. [Organization of planning; Construction of surface buildings and structures] Organizatsiya proektirovaniya; Stroitel'stvo zdaniy i sooruzheniy na poverkhnosti shakht. 1958. 497 p. (MIRA 11:12)

(Mining engineering)

(Building)

VENGLINSKAYA, Ye.A.; DOBROVOL'SKIY, N.M.

Effect of heparin on the capillary reactivity. Pat. fiziol. i
eksp. terap. 8 no.4:66 J1-Ag '64. (MIRA 18:2)

1. Kafedra patologicheskoy fiziologii (zav.-- prof. I.A. Oyvin)
Kubanskogo meditsinskogo instituta, Krasnodar.

DOBROVOL'SKIY, N.N.; ZARIF'YANTS, Yu.A.; KISELEV, V.F.; LEZHNEV, N.N.;
FEDOROV, G.G.

Properties of the surface of a freshly left graphite. Part 4.
Zhur. fiz. khim. 38 no.2:506-509 F '64. (MIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.

DOBROVOL'SKIY, N. S.

PHASE I BOOK EXPLOITATION

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Mikhaylov, Grigoriy Petrovich and Dobrovol'skiy, Nikolay Sergeyevich

Svarka metallov i progress tekhniki (Metal Welding and Technological Progress) Moscow, Mashgiz, 1957. 72 p. (Series: Iz istorii mashinostroyeniya na Urale, vyp. 9) 5,000 copies printed.

Tech. Ed.: Dugina, N.A.; Editorial Board of Series: Aleksandrov, A.I., Candidate of Technical Sciences, Bogachev, I.N., Doctor of Technical Sciences, Volskov, A.A., Candidate of Historical Sciences, Dovgopol, V.I., Engineer, Kozlov, A.G., Scientific Worker, Archives Section, Sustavov, M.I., Engineer, and Yasenev, D.A., Engineer; Executive Ed. (Ural-Siberian Division, Mashgiz): Bezukladnikov, M.A., Engineer.

PURPOSE: The booklet is intended for engineers, technicians, scientific workers and students.

COVERAGE: This is the ninth of a series of ten books entitled "From the History of Machine Building in the Urals." It presents the history of the origin and development of metal welding. The

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Metal Welding and Technological Progress

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historical progress of the welding industry is described with special emphasis given to electric welding. The achievements of contemporary welding practice and their applications in the Soviet national economy are discussed. The influence of welding on the progress of technology and labor productivity is also treated. Mention is made of such organizations and institutes as the Institute of Electric Welding imeni Ye. O. Paton, the Central Scientific Research Institute of Heavy Machine Building, the Institute of Welding Equipment, Uralsmashzavod, the Ural Polytechnic Institute, the Krasnyy Kotel'shchik Plant in Taganrog, the Novo-Kramatorskiy Plant, the Orgametall Research Institute, etc., and their contributions are discussed briefly. Among the personalities mentioned are Professors and Doctors and Technical Sciences: G.P. Mikhaylov, N.S. Siunov, B. Ye. Paton; Engineers: A.A. Kirillov and Yu. Z. Voloshkevich, and Candidate of Technical Sciences V.V. Stepanov. There are 13 Soviet references.

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Ch. I. Development of the Technique of Joining Metals	5
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Ch. III. Electric Welding Replaces Riveting and Casting	26
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AVAILABLE: Library of Congress	

GO/wde
10-30-58

Card 3/3

SOV/137-58-7-13984

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 2 (USSR)

AUTHOR: Dobrovol'skiy, N. S.

TITLE: Pages from the History of the Verkh-Isetskiy Metallurgical Plant (1726-1861) [Iz istorii Verkh-Isetskogo metallurgicheskogo zavoda (1726-1861 gg.)]

PERIODICAL: Tr. Ural'skogo politekhnich. in-ta, 1957, Nr 40, pp 60-74

ABSTRACT: Data from the archives of the Verkh-Isetsk Plant are used to show the development of the forces and relationships of its production during the 18th and the first half of the 19th century (1726-1861). An attempt is made to elucidate certain questions of the history of the period when the Verkh-Isetsk Plant was operated by serf labor. In 1726 a puddling works was built, and in 1734 the first blast furnace. The cost of construction of the plant and its equipment was 10,156 rub. Prior to 1758, the plant was government property, but then it went into private hands. At the end of the 18th and during the first half of the 19th century the plant was the largest not only in the Urals but in the country. In 1800 sheet-rolling and flatting mills were built to produce roofing Fe. In 1803 a flattening machine was

Card 1/2

SOV/137-58-7-13984

Pages from the History of the Verkh-Isetsk Metallurgical Plant (cont.)

invented that made it possible to roll sheet 56"-84" long. In 1839 preheated blow was practiced at a blast furnace for the first time in the Urals. The steels were not inferior to Swedish St.

D. P.

1. Industry--USSR 2. Industrial plants--Development 3. Metals--Production

Card 2/2

Dobrovol'skiy, N.S.

3-58-6-19/34

AUTHOR: Shapatin, V.A., and Dobrovol'skiy, N.S.

TITLE: We Have Begun to Work in Single Shifts (Nachali rabotat' v odnu smenu)

PERIODICAL: Vestnik Vysshey Shkoly, 1958, Nr 6, pp 74 - 76 (USSR)

ABSTRACT: Beginning with the 2nd semester of the 1957/58 school year, the Ural Polytechnical Institute imeni Kirov switched to one session instead of the former two. The principle problem to be solved under the new conditions was to work out a new instruction schedule. For this purpose the institute coordinated with the Moscow vuzes - the Energeticheskoy (Power Engineering) and Stanko-instrumental'nyy (Machine Tool Institutes), the Vyssheye tekhnicheskoye uchilishche (Higher Technical School), and the Leningradskiy politekhnicheskoye institut (Leningrad Polytechnical Institute) so as to profit from their experience.

ASSOCIATION: Ural'skiy politekhnicheskoye institut imeni S.M. Kirova (Ural Polytechnical Institute imeni S. M. Kirov)

Card 1/1

GOLUBEV, I.F.; DOBROVOL'SKIY, O.A.

Measuring the density of nitrogen and hydrogen at low temperatures
and high pressures by hydrostatic suspension. Gaz. prom. 9 no.5:
43-47 '64. (MIRA 17:6)

DOEROVOL'SKIY, O.A.; BELYAYEVA, T.N.; GOLUBEV, I.P.

Measuring the density of methane by the hydrostatic suspension
method. Gaz. prom. 9 no.11:47-48 '64. (MIRA 17:12)

PUGACH, Anton Nikolayevich [Puhach, A.M.]; DOBROVOL'SKIY, O.A.,
[Dobrovol's'kyi, O.A.], red.; GULENKO, O.I. [Hulenko,
O.I.], tekhn. red.

[Specialization in the production of pork on the "Maiak"
Collective Farm] Spetsializatsiia vyrobnytstva svynyny v
kolhospi "Maiak." Kyiv, Derzhsil'gospvydav URSR, 1962.
13 p. (MIRA 17:1)

1. Predsedatel' kolkhoza "Mayak" Vinnytskogo rayona Vin-
nitskoy oblasti (for Pugach).

PAKHROMENKO, Vladimir Vladimirovich; DOBROVOL'SKIY, O.A.
[Dobrovol's'kyi, O.A.], red.; CHEREVATSKIY, S.A.
[Cherevats'kyi, S.A.], tekhn. red.

[Animal and bird protection in the Ukraine] Okhorona
zviriv i ptakhiv na Ukraini. Kyiv, Derzh. vyd-vo sil'-
s'kohospodars'koi lit-ry URSR, 1962. 97 p.

(MIRA 16:4)

(Ukraine--Wildlife, Conservation of)

PODOBA, Yevgeniy Georgiyevich[Podoba, IE.H.]; DOBROVOL'SKIY, O.A.
[Dobrevol's'kiy, O.A.], red.; MANZHERAN, P.F., tekhn. red.

[Work practices of the "Komunist" Breeding Plant] Dosvid raboty plemzavodu "Komunist." Kyiv, Derzhsil'hospvydav URSR, 1963. 50 p.
(MIRA 174)

KOVALYUSHKO, S.P.; BELYAKOV, M.I., red.; TOGOBITSKAYA, N.V.
[Tohobits'ka, N.V.], red.; KOVALENKO, O.I., red.;
~~DOBROVOL'SKIY, O.A.~~[Dobrovol's'kyi, O.A.], red.;
NAGORNIY, A.G.[Nahornyy, A.H.], red.; LEVITSKAYA, G.P.
[Levyts'ka, H.P.], red.; CHEREVATSKIY, S.A.[Cherevats'kyi,
S.A.], tekhn. red.

[Manual on production planning and organization on collective
and state farms] Dovidnyk po planuvanniu i organizatsii vy-
robnytstva v kolhospakh i radhospakh. Kyiv, Derzhsil'hosp-
vydav URSR, 1963. 935 p. (MIRA 16:12)

(Ukraine--Farm management--Handbooks, manuals, etc.)

DOBROVOL'SKIY, O.A.; GOLUBEV, I.F.

Measuring the density of helium. Gaz. prom. 10 no.7:53-54 '65.
(MIRA 18:8)

ALEKSEYEVA, V.D., red.; GOBOVOL'ENY, O.N., red.

[Technical information; Highway construction] Tekhnicheskaya informatsiya; Stroitel'stvo avtomobil'nykh dorog. Moskva, 1963. 62 p. (MIRA 17:10)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy proizvodstvennyy komitet po transportnomu stroitel'stvu. Tekhnicheskoye upravleniye. Orgtransstroy.

MYUNSON, H. S.; DOBROVOLSKIY, O. V.

"Cosmic absorption at different galactic longitudes," Astron. Zhur., 17, No. 5, 1940.

Report 6-1518, 23 Oct 1951

DOBROVOL'SKIY, O.V.

Eclipsing variable AW Pegasi. Per. zvezdy 6 no.5:265-278 Mr '48.
(MIRA 12:7)

1. Stalinabadskaya astronomicheskaya observatoriya.
(Stars, Variable)

DOBROVOL'SKIY, O. V.

Dobrovol'skiy O. V. - "The eclipsing variable star AW Pegasi, " Peremen.
zvezdy, Vol. VI, No. 5, 1948 (Published 1949), p. 265-72 - Bibliog: 10 items

SO: U-3600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

DOBROVOL'SKIY, O. V.

Dobrovol'skiy, O. V. - "Solar activity and integral brilliance of the heads of comets",
Byulleten, Komissii po isselovaniyu Solntsa (Akad. nauk SSSR), No. 1, 1949, p. 1-8

SO: U-4631, 16 Sept. 53, (Letopis 'nykh Statey, No. 24, 1949).

DOBROVOL'SKIY, O.V.

Integral visual brightness of the head of a comet. Trudy Stal.
astron.obser. 3 no.1:42-57 '50. (MLRA 8:3)
(Comets)

DOBROVOL'SKIY, O. V.

"Diffusion of Meteor Trails," Byul Stalinabad Astr Obs, No 1, pp 15-26, 1952

States that recent years have witnessed considerable work on the observation of stable ionization trails of meteors and particularly on the observation of the observable widening of the trails, e.g., I. S. Astapovich (Byulleten' KISO - Solar Research Commission), No 5, 6, 71, 1950, during 1942-48 in Ashkhabad made over 100 observations of stable (persistent) trails, for 80 of which the widths were evaluated, and two-sided observations of meteors are being conducted in Odessa under the guidance of Prof. V. P. Tsesevich (DAN SSSR, Vol 74, p 677, 1950), Cor.Mbr., Acad Sci Ukr SSR. Discusses variation in ionic density under the influence of turbulent diffusion; visible brightness (intensity) of the trail and turbulent diffusion; influence of light emission on ionic density; detn of the coef of diffusion according to the observable widening of the trail; evaluation of the light-emission function F; actual applications to practical examples; coef of diffusion and the so-called velocity of diffusion.

251T14

evaluation A-3075850

BAKHAREV, A.M.; DOBROVOL'SKIY, O.V.

Elevation and radiants of telescopic meteors in 1947-1948. Biul.Stal.as-
tron.obser. no.3:17-29 '52. (MLRA 6:6)

1. Stalinabadskaya astronomicheskaya observatoriya. (Meteors)

DOBROVOLSKIY, O. V.

Solar System, Comets (3567)

Byull. Stalinobadskoy Astron. Observ., No 5, 1953 pp 3-16

Dobrovolskiy, O. V.

On the Theory of Comet Shapes

Indicates a computational error overlooked by S. V. Orlov in his formulas for the distance of the upper shell of a comet from its nucleus. Considers heads of comet to be of spherical shape.

SO: Referativnyy Zhurnal -- Astronomiya i Geodeziya, No 5, 1954 (W-30976)

DOBROVOL'SKIY, O.V.

Shock wave connected with the motion of a meteoric body. Bnl.
Stal.astron.obser. no.6:11-16 '53. (MLRA 7:9)
(Shock waves) (Meteors)

DOBROVOL'SKIY, O.V.

~~DOBROVOL'SKIY, O.V.~~

Sphere of activity of a comet nucleus. Biul.Stal.astron.obser. no.6
'59. (MIRA 7:9)

(Dobrovol'skiy, O.V.)

DOBROVOL'SKIY, O.Y.

Theory of comet forms. Part 2. Biul.Stal.astron.obser. no.7:3-25
'53. (MLRA 7:9)

(Comets)

DOBROVOL'SKIY, O.V.

Theory of comet forms. Part 3. Biul.Stal.astron.obser. no.8:3-20 '53.

(MLRA 7:5)

(Comets)

DOBROVOL'SKIY O. V.

"Some Nonstationary Processes in Comets and Solar Activity." Dr Phys-Math
Sci, Main Astronomical Observatory, Acad Sci USSR; Stalinabad Astronomical
Observatory, Acad Sci Tadzhik SSR, Leningrad-Stalinabad, 1954 (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (13) SO: Sum. 598, 29 Jul 55

DOBROVOL'SKIY, O.V.

Comet photometry. Biul.Stal.astron.obser. no.9:3-12 '54.
(MIRA 8:1)

(Photometry, Astronomical) (Comets)

DOBROVOL'SKIY, O.V.

Nature of accelerations in tales of Type 1 comets. Biul.Stal.astron.
obser. no.10:3-13 '54. (MLRA 8:1)
(Comets)

DOBROVOL'SKIY, O.V.

Problem of the relation between comet luminescence and the northern
lights. Bnl.Stal.astron. obser. no.10:20-24 '54. (MIRA 8:1)
(Comets) (Auroras)

DOBROVOL'SKIY, O. V.

Subject : USSR/Astronomy AID - P-234
Card : 1/2
Author : Dobrovol'skiy, O. V.
Title : Electrostatic Fields in the Heads of Comets
Periodical : Astron. zhur., v. 31, 2, 167-170, Mr - Ap 1954
Abstract : An electrostatic field in the head of a comet is computed. Principal causes of the field's origin are:
1) photoionization of the surface of the core by hard electromagnetic radiation of the sun, and 2) secondary electronic emission from the surface of the core under the action of corpuscular solar emanation. Allowance is made for the neutralization of the surface by the electronic flux from the negative space charge above the surface of the core. With equilibrium established, the intensity of the electrostatic field appears not to exceed the range of 1 volt/cm, even when the flare of solar activity is at its maximum. Such a field cannot appreciably affect the motion of dust particles and neutral molecules in the comet. This refutes L. Boss

Astron. zhur., v. 31, 2, 161-166,
Mr - Ap 1954, (additional card)

AID - P-234

Card : 2/2

and N. Richter's electrostatical hypothesis of the
flares of brightness of comets. Formulae. 7 ref-
erences (after 1949), 5 Russian.

Institution : Astron. Observ. of the Acad. of Sci., Tadzhik SSR,
Stalinabad

Submitted : May 21, 1953

DOBROVOL'SKIY, O. V.

Subject : USSR/Astronomy AID P - 425
Card 1/1 Pub. 8, 4/16
Author : Dobrovol'skiy, O. B.
Title : Causes of Ionization of Molecules in Comets
Periodical : Astron. zhur., v. 31-4, 324-326, J1-Ag 1954
Abstract : The phenomenon of overcharging is a possible mechanism of ionization of molecules in the tails of comets of the first type. Because of the nearness of the potentials of ionization of H, CO and N₂, the H⁺ captures electrons of the neutral molecules of CO and N₂, and acquires a resonant character. This possibly results in the appearance of ions CO⁺ and H₂⁺. 8 references
Institution: Observatory of Stalinabad, Acad. of Sci., Tadjik SSR
Submitted : February 10, 1953

BABADZHANOV, Pulat Babadzhanovich; SOLOV'YEV, A.V., otv.red.; DOBROVOL'SKIY,
O.V., red.; KATASEV, L.A., red. BAKHAREV, red.; FROLOV, P.M.,
tekhn.red.

[Investigating the rate of the ejection of mater from comet
nuclei; origin of meteor showers] Issledovanie skorostei
izvershenia veshchestva i iader komet; k voprosy o proiskhoz-
denii meteornykh potokov. Stalinabad, Izd-vo Akad.nauk Tadzh.
SSR, 1955. 67 p. (Akademiia nauk Tadzhinskoi SSR. Stalinabad,
Trudy, vol. 38). (MIRA 12:11)
(Comets) (Meteors)

DOBROVOLSKIY, O.V.

"Accelerations in the Tails of Comets 1908 III Morhouse, and 1943 I Whipple - Fedtke - Tevzadze," by O. V. Dobrovolskiy, Byul. Stalinabad. Astronom. Observ., No 12, 1955, pp 3-9 from Referativnyy Zhurnal -- Astronomiya-Geodeziya, No 2, Feb 57, Abstract No 1452) ✓

The theory of acceleration in ionized comet tails, developed by the author (Referativnyy Zhurnal -- Astronomiya-Geodeziya, 1956, Abstract No 6400) states that the acceleration of the cloud formation in the comet's tail, produced by a corpuscular stream emanating from the sun, is directly proportional to the surface brilliance of the cloud and inversely proportional to its visible surface. Since with increasing distance from the nucleus, the cloud formations usually increase in size and their surface brightness decreases, their acceleration should decrease with the distance from the nucleus. This conclusion is verified using as an example the above-mentioned comets, for which there are sufficiently detailed acceleration determinations. The expected course of acceleration with distance from the nucleus is confirmed by observational data which, at the same time, bear out the proposed mechanism for acceleration of comet ions. (U)

54M-1360

DOBROVOL'SKIY, O.V.

Pons-Brooks comet 1812-1884 I-1953c. Biul. Stal.astron.obser. 4
no.13:10-12 '55.

(Comet, Pons-Brooks (1884 I))

(MLRA 9:3)

DOBROVOL'SKIY, O.V.

Corpuscular solar radiation as a probable factor in the
formation of halos in comets. Astron. zhur. 32 No. 6: 514-517
N-D '55. (MLRA 9:2)

1. Stalinabadskaya astronomicheskaya observatoriya.
(Solar radiation) (Comets)

DOBROVOL'SKIY, O.V.

~~Problems of heat conditions in the surface layer of a~~
comet nucleus. Biul.Stal.astron.obser. no.15:3-9 '56.

(MLRA 9:10)

(Comets)

DOBROVOL'SKIY, Oleg Vasil'yevich (Stalinabad Astron Obs) awarded sci degree of Doc Physico-Math Sci for the 30 Mar 56 defense of dissertation: "Certain non-stationary processes in comets and solar activity" at the Council, Main Astron Obs, AS, USSR; Prot No 11, 10 May 58.
(BMVO, 10-58,20)

DOBROVOL'SKIY, O.V.

Lifetime of comet atmosphere molecules in the solar L_1 field of radiation.
Biol.Stal.astren.obser. no.16:23-24 '56. (MIRA 10:1)
(Solar radiation) (Comets)

DOBROVOL'SKIY, O.V.

Precision in determining accelerations in tails of comets of the first group and the possibility of detecting systematic changes in these accelerations. Biul Stal. astron. obser. no.18:5-11 '56.
(Comets) (MIRA 10:6)

IVANIKOV, V.I.; SOLOV'YEV, A.V., otv.red.; BABADZHANOV, P.B., red;
DOBROVOL'SKIY, O.V., red; KATASEV, L.A., red.; BAKHAREV, red.;
PROLOV, tekhn.red.

[Methods used in photographic photometry of meteors] O metodakh.
fotograficheskoi fotometrii meteorev. Stalinabad. Izd-vo Akad.
nauk Tadzhik, SSR, 1957. 45 p. (Stalinabad.Astronomicheskaya
observatoriya. Bulletin', No. 21) (MIRA 11:8)
(Meteors) (Photometry, Astronomical)

SAIDOV, Kasym Khasanovich; SOLOV'YEV, A.V., otv. red.; BABADZHANOV, P.B., red.;
DOBROVOL'SKIY, O.V., red.; KATASEV, L.A., red.; BAKHAREV, A.M., red.;
VINOGRADSKAYA, S.N., red.izd-va; FROLOV, P.M., tekhn. red.

[Spectrophotometry of beta Lyrae] Spektrofotometriia beta Liry.
Stalinabad, Izd-vo AN Tadzh. SSR, 1957. 93 p. (Akademiia nauk
Tadzhikskoi SSR. Stalinabad, Trudy, vol. 66).

(MIRA 12:12)

(Stars, Variable) (Spectrophotometry)

SAIDOV, Kasym Khasanovich; SOLOV'YEV, A.V., otv.red.; BABADZHANOV, P.B.,
red.; ~~DOBROVOLISKY, O.V.~~, red.; KATASEV, L.A., red.; BAKHAREV,
A.M., red.; VINOGRADSKAYA, S.N., red.izd-va; PROLOV, P.M., tekhn.
red.

[Spectrophotometry of Beta Lyrae] Spektrofotometriia β Lira.
Stalinabad, Izd-vo AN Tadzhikskoi SSR, 1957. 97p. (Stalinabad.
Astronomicheskaya observatoriya. Trudy, vol.66) (MIRA 12:10)
(Spectrophotometry) (Stars, Variable)

DOBROVOL'SKIY, O.V.

Causes of the absolute magnitude variation of Encke's
and other short-period comets. Biul.Stal.astron.obser.
no.19:11-25 '57. (MIRA 13:3)
(Comets)

BAKHAREV, A.M.; DOBROVOL'SKIY, O.V.

Trails of meteors observed in Tajikistan. Biul. Stal. astron.
obser. no. 20:18-23 '57. (MIRA 11:8)
(Tajikistan--Meteors)

DOBROVOL'SKIY, O.V.

Comet astronomy. Biul. Stal. astron.obser. no.22/23:35-41 '57.
(MIRA 11:7)

(Comets)

DOBROVOL'SKIY, O.V.

Physics of comet tails. Izv. Otd. est. nauk AN Tadzh.SSR
no.23:3-9 '57.

(MIRA 11:8)

1. Stalinabadskaya astronomicheskaya observatoriya.
(Comets)

DOBROVOL'SKIY, O.V.

The eleven-year cycle of comet activity. Biul.Kom.po komet. i
meteor. AN SSSR no.2:20-23 '58. (MIRA 12:4)
(Comets)

88704

9.9847

S/058/60/000/010/013/014
A001/A001

Translation from: Referativnyy zhurnal, Fizika, 1960, No. 10, p. 346, # 27649

AUTHOR: Dobrovol'skiy, O.V.

TITLE: Radio Emission of Comets

PERIODICAL: Byul. In-ta astrofiz. AN TadzhSSR, 1958, No. 26, pp. 3 - 11

TEXT: The author discusses the results of radio observations of the comet Arend-Roland 1956h performed by various observers at frequencies from 19.7 to 1,420 Mc during the period from March 10 to May 17, 1957. The main peak of radio emission (flux up to $5 \times 10^{11} \text{ h-22(?) w.m}^{-2} \cdot \text{cps}^{-1}$ at 27.6 Mc) is explained by generation of electromagnetic waves by plasma oscillations which arise during the interaction of ionized clouds of the cometary tails with the solar corpuscular fluxes. The simultaneous presence of a few dozens of local gas condensations with a concentration of $\sim 10^8 \text{ cm}^{-3}$ is sufficient to produce the observed flux. The existence of condensations can be understood on the basis of the ice model of the comet nucleus. According to this model, not only ejections of dust particles forming "synchrotrons" are probable, but also ejections of particles which are rich with

Card 1/2

DOBROVOL'SKIY, O.V.

Comets as indicators of solar activity. Astron.sbor no.3/4:73-
80 '60. (MIRA 14:11)

1. Institut astrofiziki AN Tadzhikskoy SSR.
(Comets)
(Sun)

DOBROVOL'SKIY, Oleg Vasil'yevich; BABADZHANOV, P.B., otv.red.; SERGEYEVA, L.V.,
red.izd-vv; PROLOV, P.N., tekhn.red.

[Nonstable processes in comets and solar activity] Nestatsionarnye
protssy v kometakh i solnechnaya aktivnost'. Stalinabad, Izd-vo
Akad. nauk Tadzhikskoi SSR, 1961. 194 p. (Akademiia nauk Tadzhikskoi
SSR, Dushanbe. Institut astrofiziki. Trudy, vol. 8). (MIRA 16:5)
(Comets) (Sun)

S/035/62/000/012/022/064
A001/A101

AUTHOR: Dobrovol'skiy, O. V.

TITLE: The 8th plenum of the comet-meteor commission of the Astronomical Council, AS USSR

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 12, 1962, 69, abstract 12A511 ("Byul. Komis. po kometam i meteoram Astron. soveta AN SSSR", 1961, no. 5, 53 - 54)

TEXT: The 8th plenum of the Commission on comets and meteors was held in Khar'kov on September 25 - 28, 1959, attended by 22 scientific institutions.. A series of reports were heard. It was emphasized that continuation and development of meteor observations would be expedient also after termination of IGY and IGC. A new membership of the Commission was approved. ✓

[Abstracter's note: Complete translation]

Card 1/1

DOBROVOL'SKIY, O.V.

Spectrum of Mrkos' comet (1957 d). Biul.Inst.astrofiz.An Tadzh.SSR
no.30:3-7 '61. (MIRA 15:3)
(Comets--1957--Spectra)

DOBROVOL'SKIY, O.V.

Effect of the interplanetary medium on the movement of the synchroes
of comet's tails. Biul. Inst. astrofiz. AN Tadzh. SSR no.31:3-8 '62.

Radiation systems in comet's tails. Ibid.:9-15

(MIRA 17:11)

S/269/63/000/004/024/030
A001/A101

AUTHOR: Dobrovol'skiy, O. V.

TITLE: Unsteady processes in comets and the solar activity

PERIODICAL: Referativnyy zhurnal, Astronomiya, no. 4, 1963, 68, abstract
4.51.537 ("Tr. In-ta astrofiz. AN TadzhSSR", 1961, v. 8, 195 pp, ill.)

TEXT: This is a survey of the problem of solar activity effect on comets. General information on comets is given: peculiarities of the outer appearance, statistical data, description of cometary spectra with tables of wavelengths, methods and results of comet mass determinations from photometric data, differentiation of matter in cometary atmospheres, models of cometary nuclei, description of comet flares. The results of empirical studies of phenomena relations in comets and on the Sun are described; they include the main information on corpuscular fluxes and intensity of short-wave solar emission from rocket and other data; description of methods for statistical correlations of solar and cometary phenomena, with examples analyzed in detail; summary of results cover the studies up to 1959 inclusive (50 appearances of comets). It has been found

Card 1/2

Unsteady processes in comets and the solar activity

S/269/63/000/004/024/030
A001/A101

that many comets do not reveal a relation sought for, or show indefinite results; however, more than 50% appearances indicate the existence of a direct relation between the level of comet activity and solar activity. The effect of short-wave radiation of the Sun on comets is calculated, in particular it is shown that its intensity is insufficient to explain the ionization of cometary atmospheres. A more detailed consideration is given to the theory of action of solar corpuscular fluxes on the nucleus, neutral coma and the ionic component of cometary atmospheres. The following parts of a comet are considered separately: a) Nucleus. Electrization, cathode disintegration, heating and chemical transformation in the nucleus surface layer are calculated. It is shown that only the latter effect may turn out to be efficient, provided that the chemical composition of the nucleus is suitable. b) Neutral coma. The heating of coma as a result of elastic scattering of solar protons is considered. The most important inelastic processes: dissociation, charge exchange, ionization, are considered. c) Ionic component. The fundamentals of the Alfvén magnetohydrodynamics of comets are presented. The studies by L. Biermann and the author on the theory of acceleration and the theory of contracting shells of Morehouse-type comets are expounded. It is emphasized that the further development of electromagnetic theory of comets has a good prospect. There are 333 references.

[Abstracter's note: Complete translation]

A. Dobrovolskiy

Card 2/2

VYAZANITSYN, V.P. [deceased]; GNEVYSHEV, M.N.; DOBROVOL'SKIY, O.V.;
KRAT, V.A.; MARKOV, A.V.; MOLCHANOV, A.P.; SOBOLEV, V.M.;
SHARONOV, V.V.; DEYCH, A.N., red.; MEL'NIKOV, O.A., red.;
KULIKOV, G.S., red.

[Course of astrophysics and stellar astronomy] Kurs astrofi-
ziki i zvezdnoi astronomii. Moskva, Izd-vo "Nauka." Vol.3.
1964. 375 p. (MIRA 17:5)

DOBROVOL'SKIY, O.V.

A possible cause of comet outbursts. Biul. Kom. po komet. i
meteor. AN SSSR no.9:3-8 '64.

Variant of the free radical mechanism of comet outbursts.
Ibid.:9-11 (MIRA 17:10)

21525.45 /EMC(v)/FCC/EMA(d)/EEC-L/EEC(t) Po-L/Pe-F/Pe-L/Pe-F
 Fi-L SSD(a)/AFML/SSD(o)/SSD/ESD/RAEM(a)/AFETR/ESD(t) GW/WS
 ACCESSION NR APL040598 BOOK EXPLOITATION S/

Vyasanitsyn, V. P.; Gnevyshev, M. N.; Dobrovolskiy, O. V.; Krat, V. A.; Markov,
A. V.; Molchanov, A. P.; Sobolev, V. M.; Sharonov, V. V. 57/

A course in astrophysics and stellar astronomy. v. 3 (Kurs astrofiziki i zvezdnoy
 astronomii. t. 3. Moscow, Izd-vo "Nauka", 1964, 376 p. 111 ill. 111
 indices. 2,150 copies printed.

TOPIC TAGS: astrophysics, stellar astronomy

TABLE OF CONTENTS [abridged]:

Foreword -- 7
 Part 1. The Sun 17
 Ch. I. Introduction -- 9
 Ch. II. Linear spectrum of the sun -- 24
 Ch. III. Structure of the photosphere; granulation, spots, flares -- 41
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Card 1/2

L 24525-65

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Ch. VIII. Solar service -- 164

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Ch. XII. Description of the nature of separate planets -- 282

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SUB CODE: AA

SUBMITTED: 18Feb64

NR REF SERV: 135

OTHER: 107

Card 2/2

ACC NR: AP7013142

SOURCE CODE: UR/0425/66/009/011/0012/0014

AUTHOR: Dobrovolskiy, O. V. (Corresponding Member AN TadzhSSR)

ORG: Institute of Astrophysics AN TadzhSSR (Institut astrofiziki AN TadzhSSR)

TITLE: One dependence in the mechanics of cometary forms

SOURCE: AN TadzhSSR. Doklady, v. 9, no. 11, 1966, 12-14

TOPIC TAGS: astrophysics, comet

SUB CODE: 03

ABSTRACT:

One of the least clear problems in cometary physics is the mechanism of ejection of the particles forming cometary tails and heads from cometary nuclei. For solution of this problem it is very important to find the dependence between acceleration a and the initial velocity v_0 of particles of the cometary atmosphere. Such a dependence could serve as an indication of what ejection mechanism is most probable. The author has analyzed data for a_0 and v_0 for a number of cometary formations. The table and figure accompanying the text show that there is a very clearly expressed quadratic dependence between a_0 and v_0 : $a_0 = \text{const } v_0^2$.

Card 1/2

ACC NR: AP7013142

This dependence is correct in a very wide range of a_0 and v_0 . The paper clearly establishes that the accelerations of the dust particles of cometary atmospheres are proportional to the squares of their initial velocities relative to the cometary nucleus. Orig. art. has: 1 figure, 1 formula and 1 table. [JPRS: 40,106]

I. 09264-47 RPT(1)

ACC NR: AP6029996

SOURCE CODE: UR/0413/66/000/015/0197/0197

INVENTORS: Dobrovolskiy, P. I.; Khachaturov, G. A.; Kats, Ya. I.; Feygina, Ts. V.

ORG: none

TITLE: A device for stopping an airplane after landing. Class 62, No. 184154

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 197

TOPIC TAGS: aircraft landing system, airfield auxiliary equipment

ABSTRACT: This Author Certificate presents a device for stopping an airplane after its landing on a runway. The device includes a cable system consisting of braking parts and a receiving part of the cable with cable holders, two braking drums with frictional disk brakes and with conical clutches, a regulator for winding and stretching the braking cable, and pneumo(hydro)electrical systems for directing the work of the device. To lower the dynamic loads at the moment of contact of the airplane and the receiving cable, the device is provided with block-and-tackle absorbers. The casings of these absorbers contain rigidly fixed blocks and movable block carriers tied to the casing with elastic bands.

SUB CODE: 15/1 SUBM DATE: 17Aug64

UDC: 629.139

Card 1/1

DOBROVOL'SKIY, P. M., KRASNYUK, P. I.

Disseminating progressive practices among state farms of the Main Ukrainian
Wine Trust. Vin SSSR 12, No 9, 1952.

~~DOBROVOL'SKIY, P.M.~~

TARASENKO, M.P.; SHIK, B.I.; DOBROVOL'SKIY, P.M.; SEMENOV, A.G., red.

[Hints to fruit and grape growers] Sovety sadovodam i vinogradariam.
Kiev, Gos.izd-vo sel'khoz. lit-ry USSR, 1957. 234 p. (MIRA 10:12)
(Fruit culture) (Viticulture)

TARASENKO, M.P.; SHIK, V.I.; DOBROVOL'SKIY, P.M.

[Advice to fruit and grape growers] Sovety sadovodam i vinogradariam.
Izd.2., dop. Kiev, Gos.izd-vo sel'khoz.lit-ry USSR, 1959. 251 p.
(MIRA 13:2)
(Ukraine--Fruit culture) (Ukraine--Viticulture)

TARASENKO, Moisey Petrovich; SHIK, Boris Il'ich; DOBROYOL'SKIY, Pavel
Mikhaylovich; MILOKOSTA, N.Ya., red.; NEMCHENKO, I.Ye., tekhn.
red.

[Advice to fruit and grape growers] Sovety sadovodam i vinogra-
dariam. Kiev, Gos.izd-vo sel'khoz.lit-ry USSR, 1960. 249 p.
Izd.3. (MIRA 15:1)

(Horticulture--Handbooks, manuals, etc.)

(Viticulture--Handbooks, manuals, etc.)

TARASENKO, M.P.; SHIK, B.I.; DOBROVOL'SKIY, P.M.; MILOKOSTA, N.Ya.,
red.; KALASHNIKOVA, O.G., tekhn. red.

[Advice on fruit culture and viticulture] Sovety po sadovodstvu
i vinogradarstvu. Izd.4., dop. Kiev, Gossel'khozizdat USSR,
1962. 276 p. (MIRA 15:6)

(Fruit culture)

DOBROVOL'SKIY, P.P.; ZHARZHAVSKAYA, I.I.

Investigating Young's modulus and the thrust forces of a pile of
pulpwood in a pulp grinder shaft. Bumagodel.mash. no.6:31-42
'58. (MIRA 13:8)

(Paper industry--Equipment and supplies)
(Grinding machines)

DOBROVOL'SKIY, P.P.

Analyzing the operation of pulp grinders. Bumgodel.mash. no.6:
43-82 '58. (MIRA 13:8)
(Paper industry--Equipment and supplies)
(Grinding machines)

DOEROVOL'SKIY, P.P.

Vibration of the bases of the drying sections of papermaking
machines. Bumagodel.mash. no.7:109-121 '59. (MIRA 13:5)
(Papermaking machinery--Vibration)

VANCHAKOV, V.M.; DOBROVOL'SKIY, P.P.; POLYAKOV, L.K.

Cylindrical vibrator screen (knotter). Bumagodel. mash. no. 8:26-39
'60. (MIRA 14:3)

(Papermaking machinery)

DOBROVOL'SKIY, P.P., kand.tekhn.nauk

"Shafts of the papermaking and finishing machines" by I.IA.Eidlin.
Reviewed by P.P.Dobrovol'skii. Bum.prom. 37 no.9:31 S '62.

(MIRA 15:9)

(Papermaking machinery) (Eidlin, I.IA.)

VAL'SHCHIKOV, N.M.; DOBROVOL'SKIY, P.P.; CHIKOV, I.I.

Newest types of chippers. Bumagoedel. Mash. no.11:124-148 '63.
(MIRA 17:6)

VAL'SHCHIKOV, N.M.; DOBROVOL'SKIY, P.P.; SILANT'YEV, V.A.,
nauchn. red.

[Analyzing the design and performance of various types of
chopping machines] Analiz konstruktsii i raboty rubitel'-
nykh mashin raznykh tipov. Moskva, TSentr. nauchno-issl.
in-t informatsii i tekhniko-ekon. issledovaniy po lesnoi,
tselliulozno-bumazhnoi, derevobrabatyvaiushchei promyshl.
i lesnomu khoz., 1963. 68 p. (MIRA 17:9)

DOBROVOL'SKIY, R.G.

Air lift calculations. Vod.i san.tekh. no.9:20-22 S '59.
(MIRA 12:12)

(Air pump)

DOBROVOL'SKIY, R.G., inzh.

Graphic method for calculating pumps for water wells. Vol. 1
san. tekhn. no.12:19-22 D'64 (MIRA 18:2)

ROKHLIN, I.A.; DOBROVOL'SKIY, S., redaktor; YUNOVSKIY, Ye., tekhnicheskiy
redaktor

[Standardization of structural elements for housing and public
buildings] Unifikatsiia konstruktsei zdani zhilishchno-grazhdan-
skogo stroitel'stva. Kiev, Izd-vo Akademii arkhitektury USSR, 1953.
83 p. [Microfilm] (MLBA 9:8)
(Building materials)

DOBROVOL'SKIY, S., inzh.; PAL'GIN, V., inzh.; BIRILOV, O., inzh.;
IVASHCHENKO, A., inzh.; RABINOVICH, S., inzh.; ROTINYANTS, A., inzh.;
SYROVATKINA, K., starshiy inzh.

Letters to the editor. Stroitel' no.11:11 N '60. (MIRA 13:11)

1. Trest Stalinshilstroy No.1 (for Syrovatkina).
(Construction industry)

166T100

DOBROVOL'SKIY, S. I.

USSR/Physics - Photoplasticity

1 Jul 50

"Application of Photoplasticity for Modeling the
Metalworking Processes," S. I. Gubkin, Active
Mem, Acad Sci Belorussian SSR, S. I. Dobrovolskiy,
Physicotechh Inst, Acad Sci Belorussian SSR, Minsk

"Dok Ak Nauk SSSR" Vol LXXIII, No 1, pp 63-65

Certain organic substances [unnamed] have mechanical
and optical properties suitable for model photoplas-
tic studies of various phenomena observed in the
working of metals. Nine colored photoplastic photo-
graphs show model pressing and extrusion processes.
Submitted 8 Mar 50.

166T100

DOBROVOL'SKIY, S. I.

258T50

USSR/Metallurgy - Metal Deformation 11 Feb 53

"Studying Isochromatic Lines in Transparent Models
Obtaining Residual Plastic Deformations," S. I.
Gubkin, Active Mem, Acad Sci BSSR (S. I. Dobrovol'skiy

DAN SSSR, Vol 88, No 5, pp 799-802

Discusses results obtained by pressing flat punch
into models made of 4 various transparent mate-
rials which reveal optical sensitivity under load.
Classifies these materials, in regard to their
response to loading, in following groups: elastic,

258T50

elastic-plastic, plastic, and high-plastic mate-
rial. Concludes that distribution of stresses in
polycrystalline metals during their plastic defor-
mation may be studied on transparent models of
amorphous high-plastic bodies which show stress
distribution in conformity with the laws of
plasticity. Illustrations show isochromatic
lines in models of various materials.

Evaluation
B-7627

GUBKIN, S.I.; DOBROVOL'SKIY, S.I.

Studying the effect of properties of material being deformed on
the distribution of stress. Sbor.nauch.trud.Fiz.-tekhn.inst.AN BSSR
no.1:3-11 '54. (Rheology) (Strains and stresses) (MIRA 10:1)

GUBKIN, S.I.; ~~DOBROVOL'SKIY~~, S.I.

Verifying the premise concerning optimum angles for pressing.
Shor.nauch.trud.Fiz.-tekh.inst.AN BSSR no.1:12-14 '54.
(MIRA 10:1)

(Power presses)

SSS/Engineering - Stress analysis

Card 1/1 : Pub. 86 - 12/40

Authors : Gubkin, S. I., Prof., and Dobrovolskiy, S. I.

Title : Optical modeling

Periodical : Priroda 43/4, 77-80, Apr 1954

Abstract : A study is made of strains and stresses in the working of metals by rolling, stamping, drawing, extruding, etc. Two ways of studying strains are indicated: Mathematical calculation and the use of models. Halide salts of silver and thallium were used for making models because they have a crystalline structure similar to that of metals and are transparent. With the use of different mixtures of these materials, models were made and the lines indicating the strains were studied photographically. Four Russian references (1949-1952). Drawings.

Institution :

Submitted :